Atty Dkt. No.: GRUE-004 USSN: 10/532.067

I. AMENDMENTS

AMENDMENTS TO THE CLAIMS

Cancel claims 3 and 4 without prejudice to renewal.

Please enter the amendments to claims 1, 13, 16, and 17, as shown below.

- 1. (Currently amended) A recombinant Modified Vaccinia Vaccine Ankara (MVA) virus comprising at least one nucleic acid coding for a *Plasmodium falciparum* merozoite surface protein-1 (MSP-1) protein or a fragment or mutein thereof, wherein the fragment of MSP-1 is selected from the fragments p83, p30, p38, p33, p19, and p42, or a combination thereof, and wherein the mutein comprises an amino acid sequence that differs from the MSP-1 amino acid sequence by addition, deletion, insertion, inversion, and/or substitution of one or more amino acids.
- 2. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the MSP-1 protein is the MSP-1 protein of the isolate 3D7 or the MSP-1 protein of the FCB1 strain.
 - 3.-4. (Canceled)
- 5. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the nucleic acid coding for MSP-1 is reduced in its adenine and thymine (AT) content compared to the wild type sequence.
- 6. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the nucleic acid coding for MSP-1 is under the control of a promoter.
- 7. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the nucleic acid at the 5' end is fused with a nucleotide sequence coding for a signal peptide sequence.
- 8. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal peptide sequence controls the secretion of the gene product.

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9. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal peptide sequence controls the localisation of the gene product to the membrane.

- 10. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal sequence controls the glycosylphosphatidylinositol anchoring of the gene product.
- 11. (Previously presented) A method of production of a recombinant Modified Vaccinia Vaccine Ankara (MVA) virus, wherein the method comprises the steps:
 - a) transfecting a eukaryotic host cell with a transfer vector, wherein
- i) the transfer vector comprises a nucleic acid encoding a *Plasmodium falciparum* merozoite surface protein-1 (MSP-1) protein, or a fragment or a mutein thereof, wherein the mutein differs by the addition, deletion, insertion, inversion and / or substitution of one or more amino acids from the MSP-1 sequence; and optionally also comprises a selection marker:
- ii) the nucleic acid according to i) is flanked by MVA sequences 5' and / or 3', wherein the sequences are suitable for the homologous recombination in the host cell:
 - b) infection with a virus based on MVA, preferably MVA;
 - c) cultivation of the host cell under conditions suitable for homologous recombination; and
 - d) isolation of the recombinant virus based on MVA.
- 12. (Previously presented) The method according to Claim 11, wherein the virus is isolated from the culture supernatant or from the cultivated host cells.
 - 13. (Currently amended) A vaccine comprising:
 - a) the recombinant virus according to one of Claims 1, 2, and 5-9 the Claims 1 to 9; and
 - b) a pharmacologically compatible carrier.
- 14. (Previously presented) The vaccine according to Claim 13, further comprising: c) MSP-1, a fragment or a mutein thereof and / or a nucleic acid coding for MSP-1, or a fragment or mutein thereof.
- 15. (Previously presented) The vaccine according to Claim 14, wherein the constituents a) and c) can be administered simultaneously, sequentially or separately.

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16. (Currently amended) A method for the prophylaxis and / or therapy of malaria, the method comprising administering the recombinant virus of any one of <u>Claims 1. 2. and 5-9 elaims 1 to 9.</u>

17. (Currently amended) A method for the prophylaxis and / or therapy of malaria, the method comprising administering: i) a recombinant virus according to one of claims 1. 2. and 5-8 1 to 8; and ii) MSP-1, a fragment or a mutein thereof and / or a nucleic acid coding for MSP-1, or a fragment or mutein thereof, wherein the fragment of MSP-1 is selected from the fragments p83, p30, p38, p33, p19, and p42, or a combination thereof, and wherein the mutein comprises an amino acid sequence that differs from the MSP-1 amino acid sequence by addition, deletion, insertion, inversion, and/or substitution of one or more amino acids.